



# *Co-Location*

*(Housing next to Jobs)*

***Overview for  
Science & Technology Committee***

*February 7, 2006*

# *Today's Presentation...*

- *Factors influencing co-location*
- *Regional perspective*
- *Importance of basic employment*
- *Proposed framework for solutions*



*October 13, 2005*

# *Factors Influencing Co-Location*

- *“Smart Growth Strategies”*
- *Shortage of housing units-not land, not yet*
- *Soaring home prices*
- *Market price-industrial vs. residential land*



*October 13, 2005*

# *Regional Perspective*

*What problems are created by co-location?*

## *Compatibility Risk Factors*

- *Air Emissions*
- *Hazardous Material*
- *Glare/Lighting*
- *Hours of Operation*
- *Noise Level*
- *Truck Traffic*

# *Regional Perspective*

## *How big is the problem?*

### *Employment Summary (2004)*

	<b>Total Firms</b>	<b>Compatible Employment Firms</b>	<b>Non-Compatible Employment Firms</b>	<b>% Non- Compatible Firms</b>	<b>% of All Firms</b>
<b>City of San Diego</b>	<b>28,286</b>	<b>27,339</b>	<b>947</b>	<b>3.3%</b>	<b>1.7%</b>
<b>Outside City of San Diego</b>	<b>28,550</b>	<b>27,979</b>	<b>571</b>	<b>2.0%</b>	<b>1.0%</b>
<b>Region Total</b>	<b>56,836</b>	<b>55,318</b>	<b>1,518</b>	<b>2.7%</b>	<b>2.7%</b>



# Regional Perspective

**Employment Type**

- Compatible Employment
- Non-Compatible Employment

Non-Compatible employment includes biomedical products, technology and pharmaceuticals, communications, computer and electronics manufacturing, defense and transportation manufacturing, and environmental technology.

**Existing Land Use**

- Residential
- Non-Residential

**Planned Use of Vacant Land**

- Residential
- Non-Residential

**EMPLOYMENT SITES**

SAN DIEGO ASSOCIATION OF GOVERNMENTS  
401 B STREET, SUITE 800  
SAN DIEGO, CALIFORNIA 92101 USA  
(619) 595-5300  
E-mail: sandag@sandag.org  
Web site: www.sandag.org

JANUARY, 2004

- Compatible Employment
- Non-Compatible Employment

Non-Competible employment includes biomedical products, biotechnology and pharmaceuticals, communications, computer and electronics manufacturing, defense and transportation manufacturing, and environmental technology.

Residential  
Non-Residential

Residential  
Non-Residential



**SANDAG**  
San Antonio's Regional Planning Authority

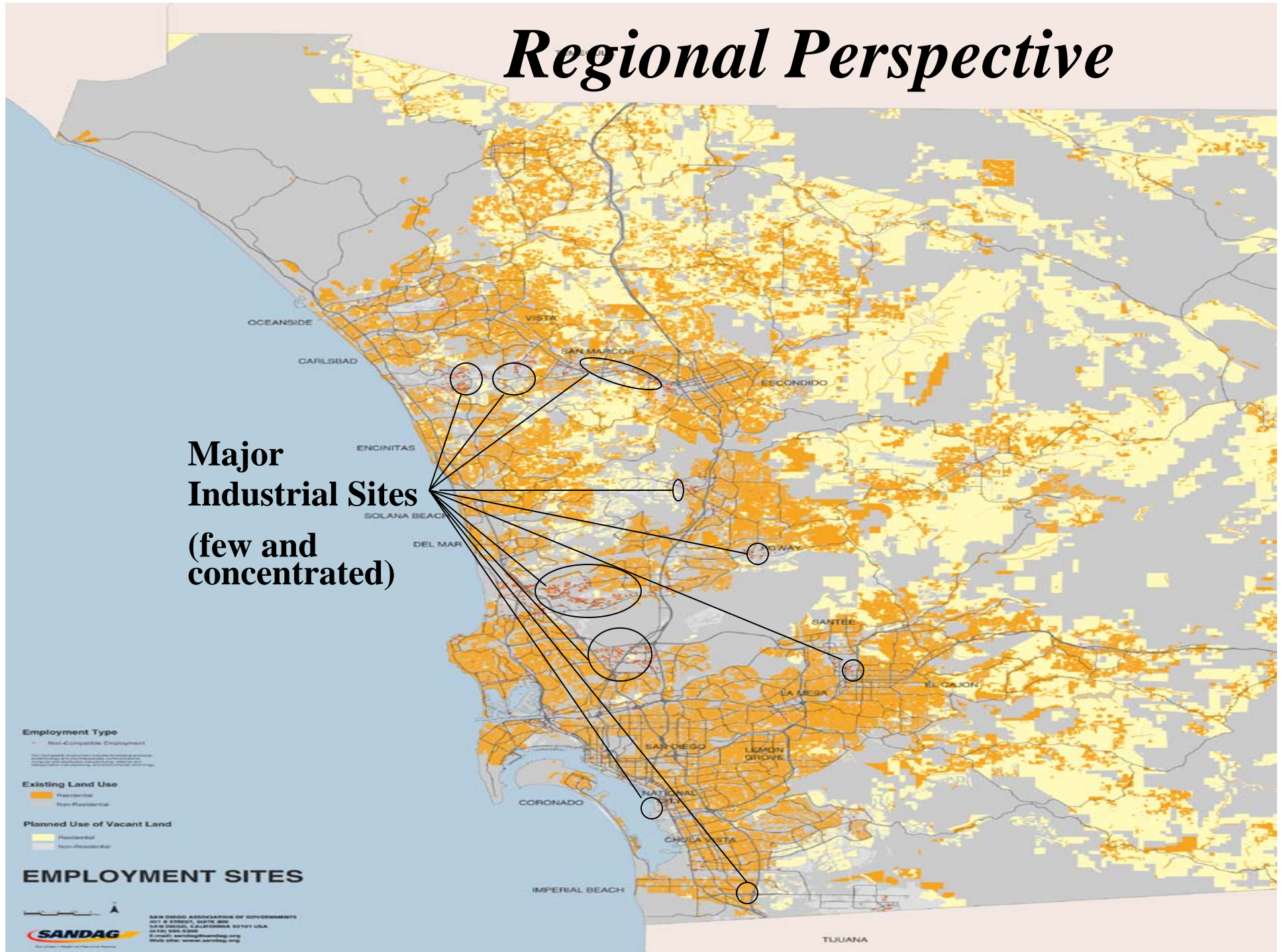
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January 2004



# *Regional Perspective*

**Major  
Industrial Sites  
(few and  
concentrated)**





# Regional Perspective

## University City

### Employment Type



Non Compatible Employment

Non Compatible employment includes biomedical products, biotechnology and pharmaceuticals, communications, computer and electronics manufacturing, defense and transportation manufacturing, and environmental technology.

### Existing Land Use



Residential

### Planned Use of Vacant Land

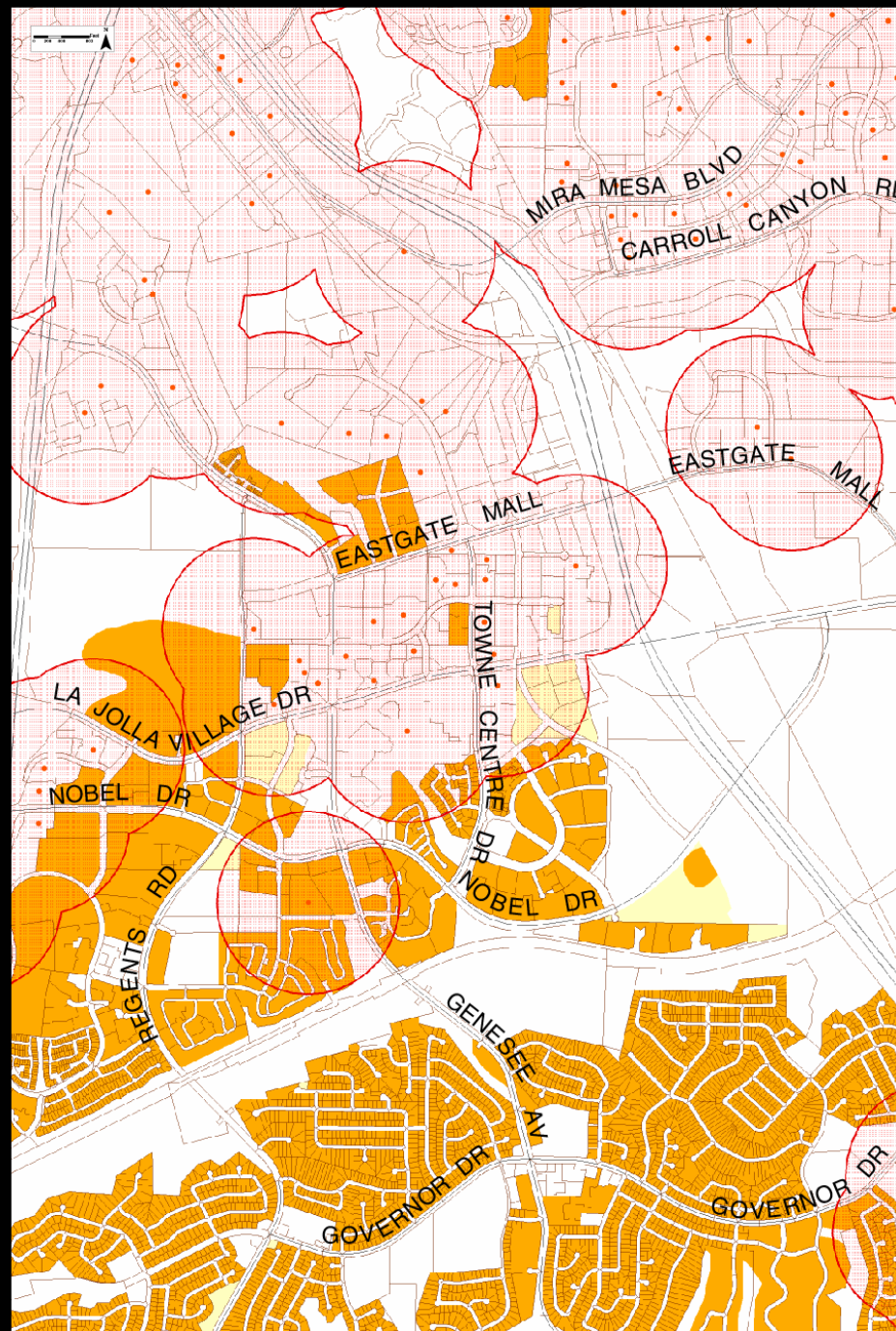


Residential



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February, 2004





# Regional Perspective

## Kearny Mesa

### Employment Type



Non Compatible Employment

Non Compatible employment includes biomedical products, biotechnology and pharmaceuticals, communications, computer and electronics manufacturing, defense and transportation manufacturing, and environmental technology.

### Existing Land Use



Residential

### Planned Use of Vacant Land

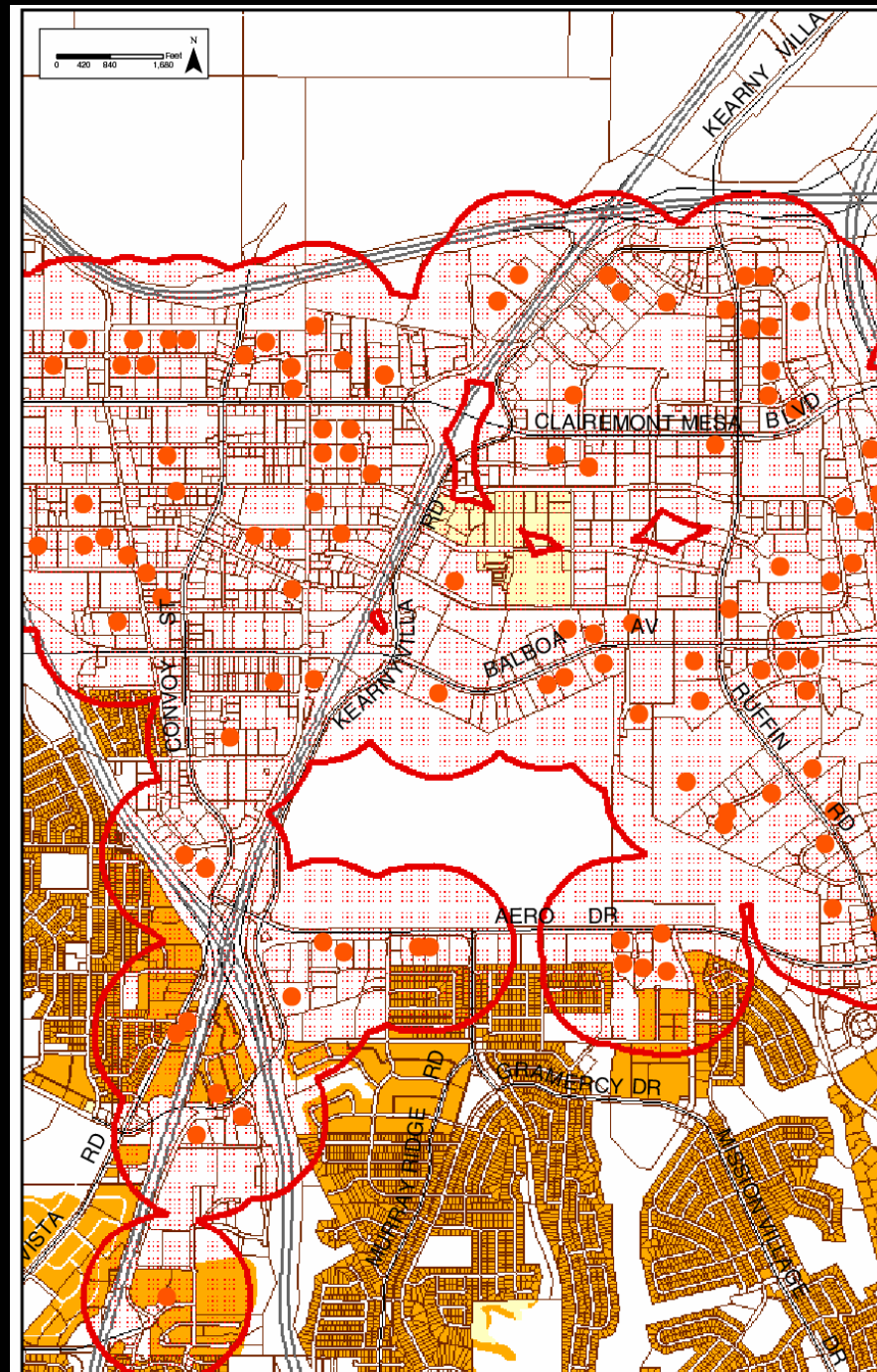


Residential



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# Regional Perspective

## Mira Mesa

### Employment Type

- Non Compatible Employment

Non Compatible employment includes biomedical products, biotechnology and pharmaceuticals, communications, computer and electronics manufacturing, defense and transportation manufacturing, and environmental technology.

### Existing Land Use

- Residential

### Planned Use of Vacant Land

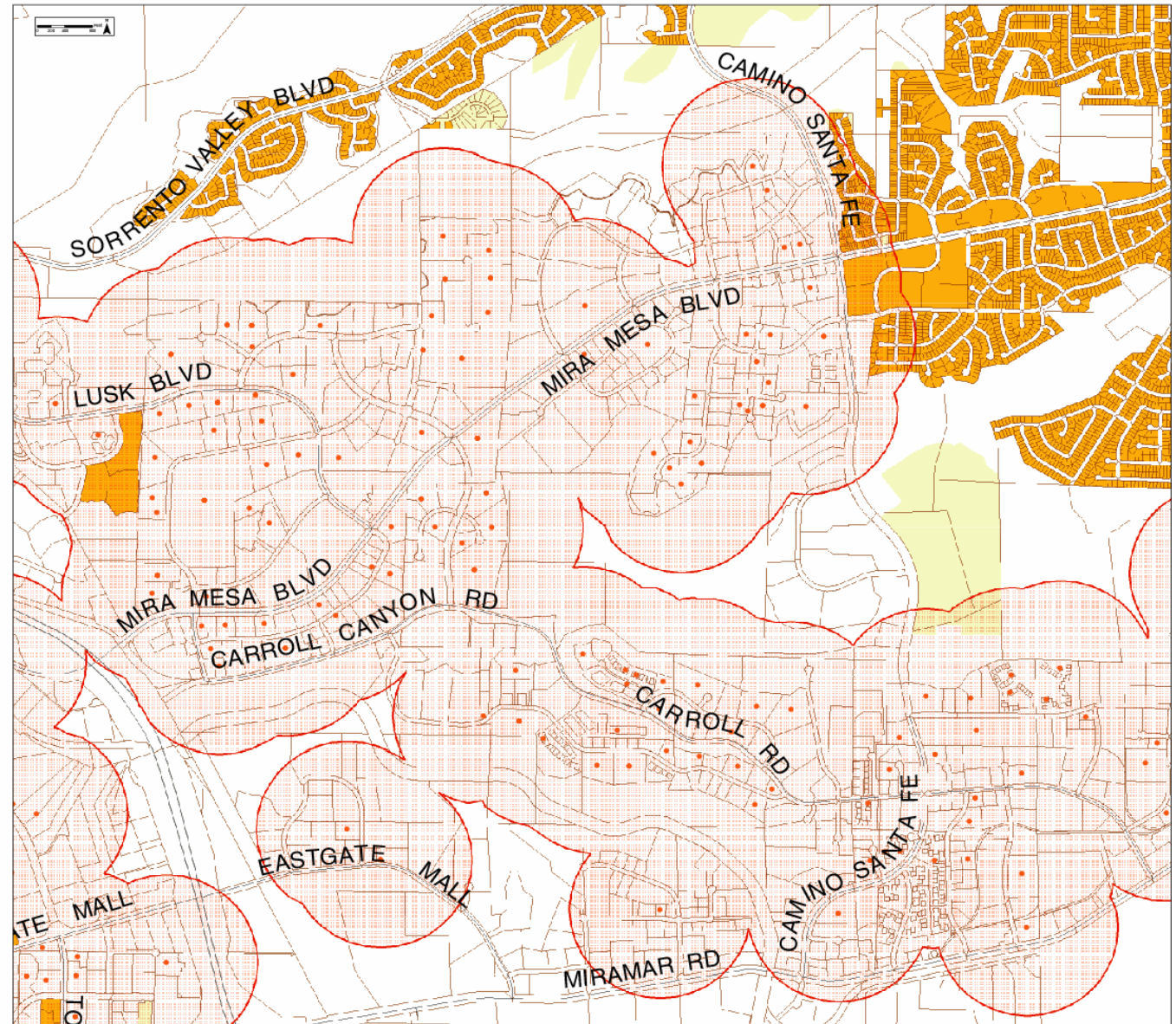
- Residential



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# Regional Perspective

## Carlsbad

### Employment Type

- Compatible Employment
- Non Compatible Employment

Non Compatible employment includes biomedical products, biotechnology and pharmaceuticals, communications, computer and electronics manufacturing, defense and transportation manufacturing, and environmental technology.

### Existing Land Use

- Residential

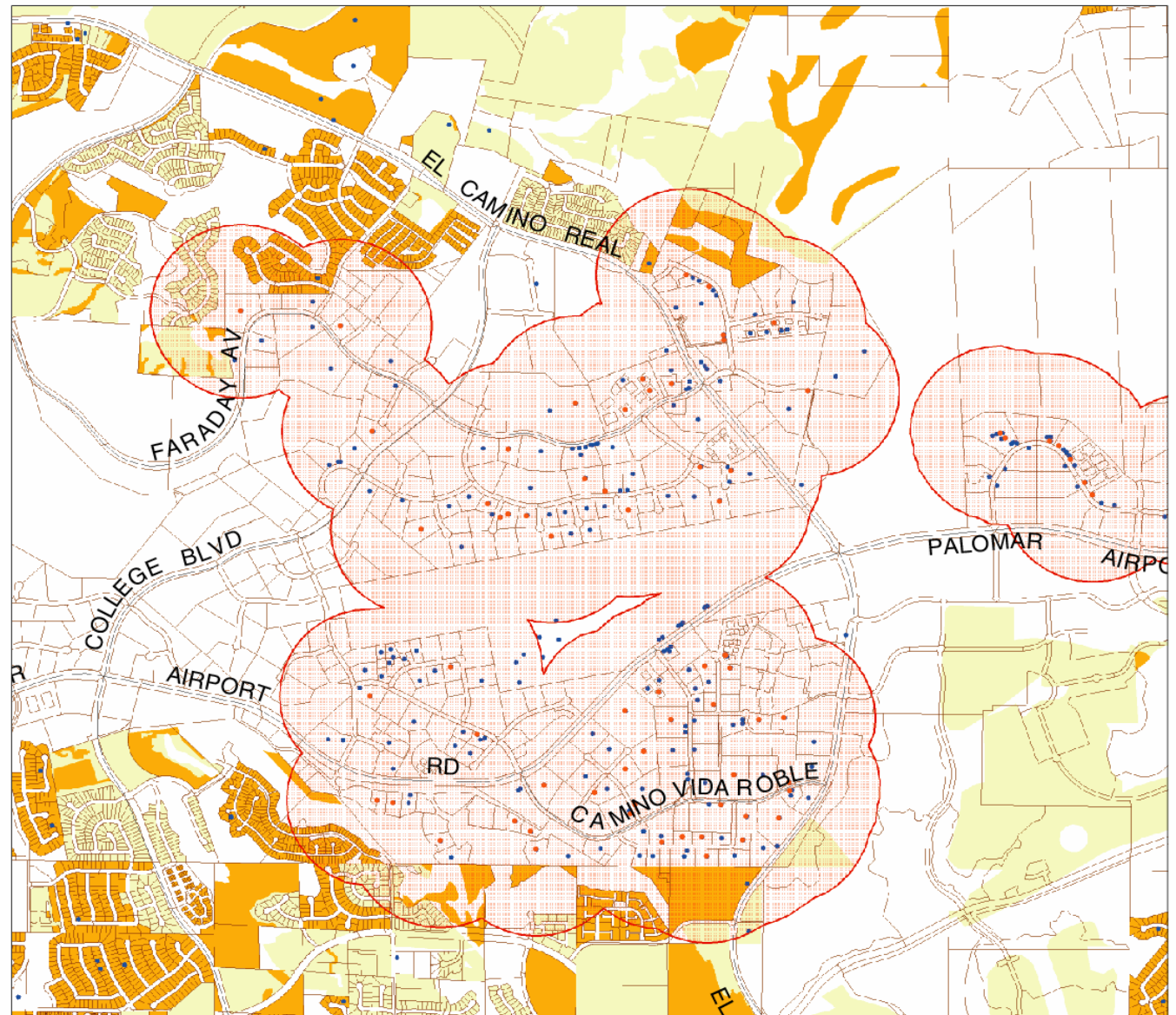
### Planned Use of Vacant Land

- Residential



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# Regional Perspective

## Midway/Morena

### Employment Type

- Compatible Employment
- Non Compatible Employment

Non Compatible employment includes biomedical products, biotechnology and pharmaceuticals, communications, computer and electronics manufacturing, defense and transportation manufacturing, and environmental technology.

### Existing Land Use

- Residential

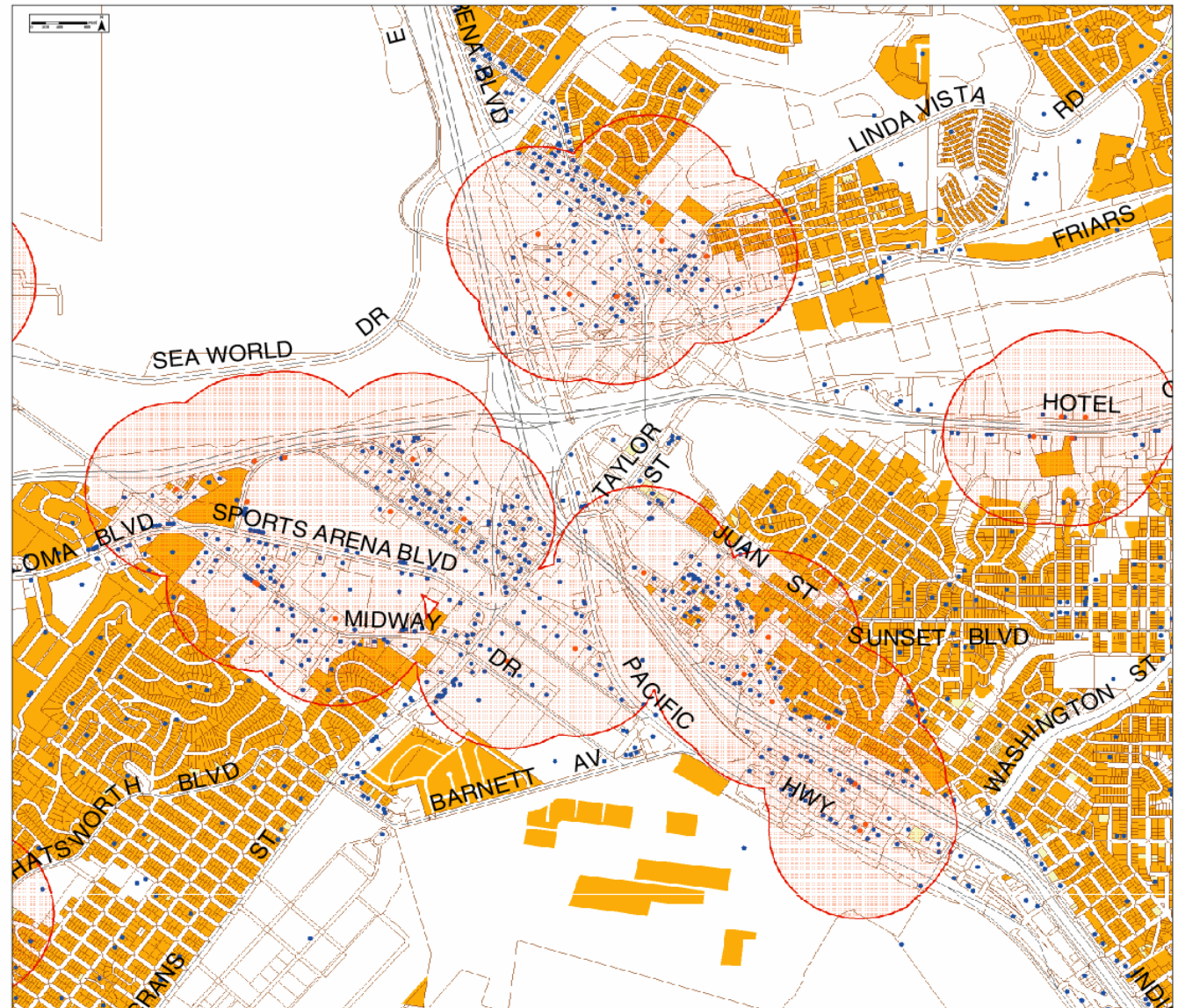
### Planned Use of Vacant Land

- Residential



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# *Importance of Basic Jobs*

*Key to a rising standard of living*

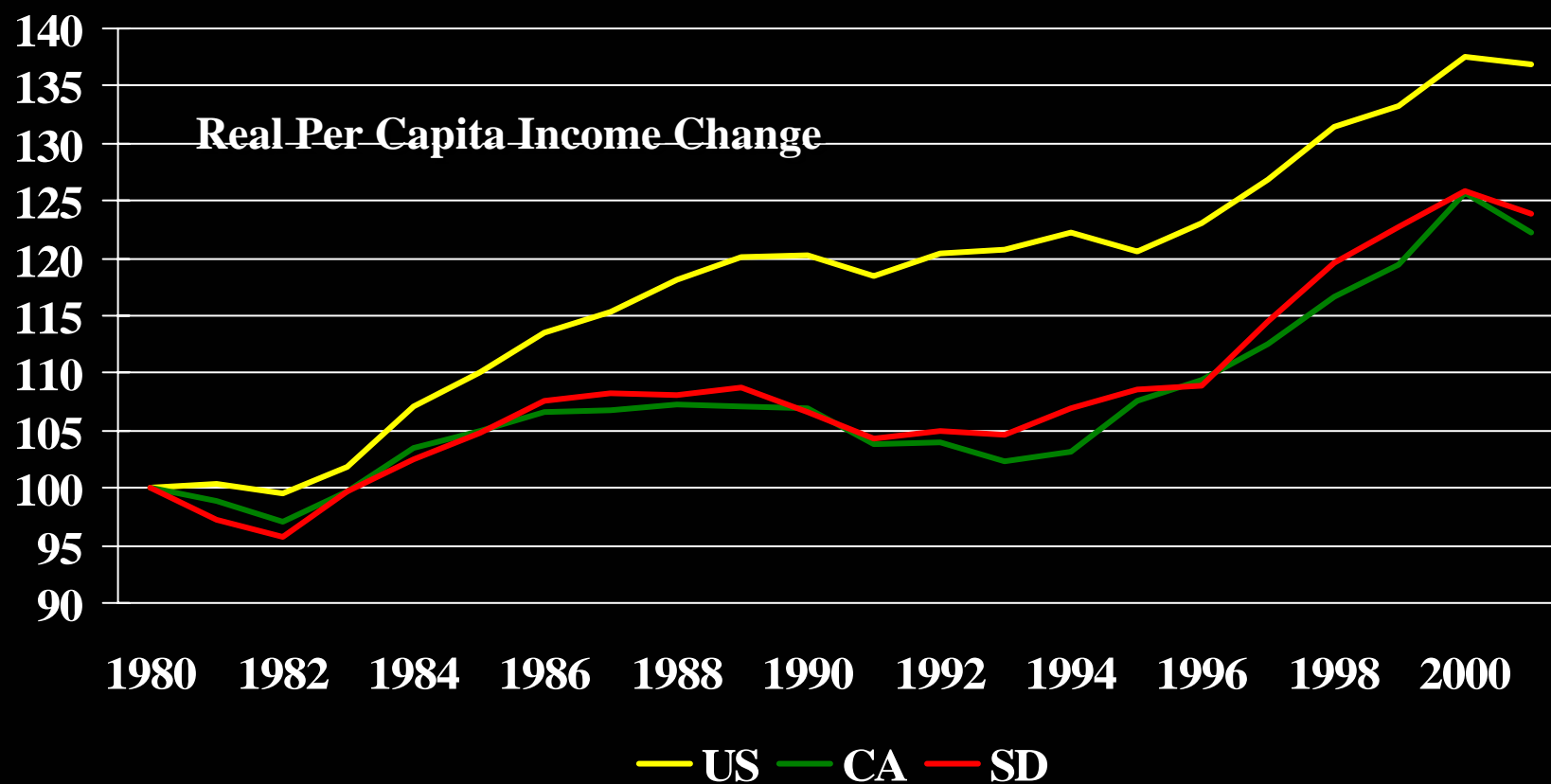


# ***Importance of Basic Employment***

- ***Drive Regional Prosperity***
  - ***New Money***
  - ***Unconstrained Markets***
  - ***Set Wage Levels***
- ***Source of Competitiveness***
  - ***Foster Innovation***
  - ***Source of Productivity***
- ***Primary Source of New Businesses***

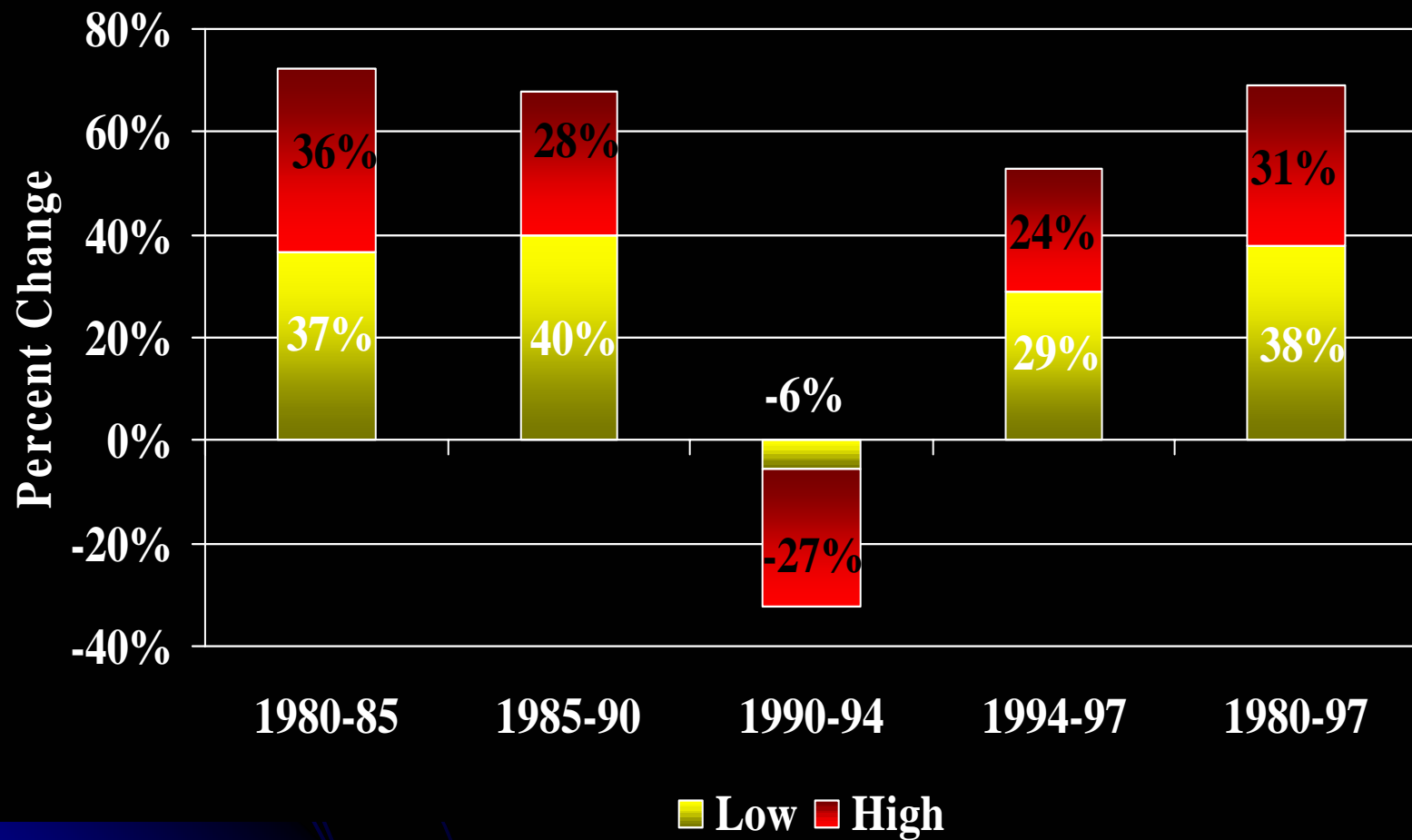


# *Slow Basic Employment Growth has Slowed Rise in Local Standard of Living*



# *Unbalanced Job Growth*

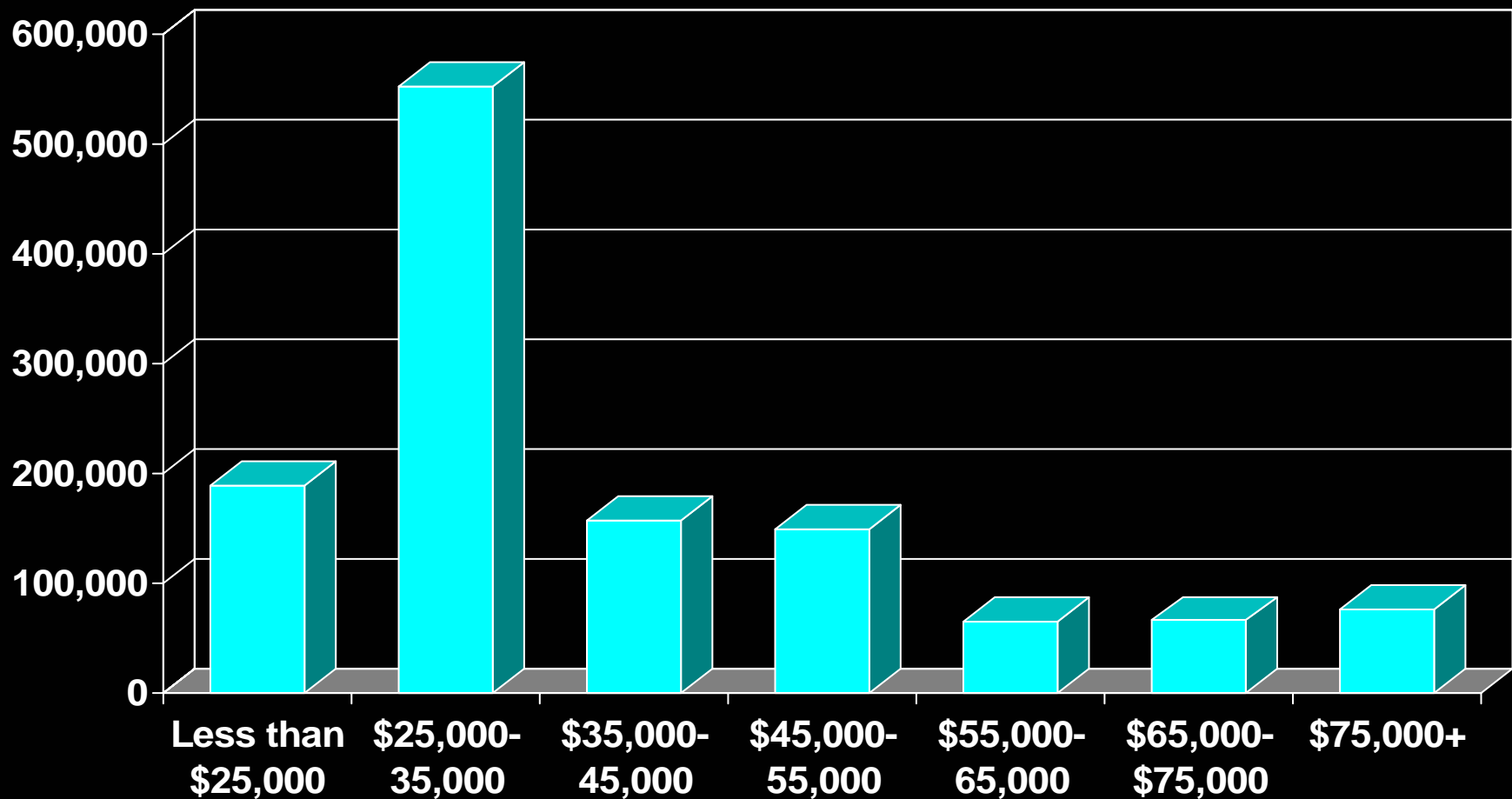
## *High and Low Paying Job Creation*



# *Unbalanced Job Opportunities*

## *Low Wage Occupations Have Highest Employment*

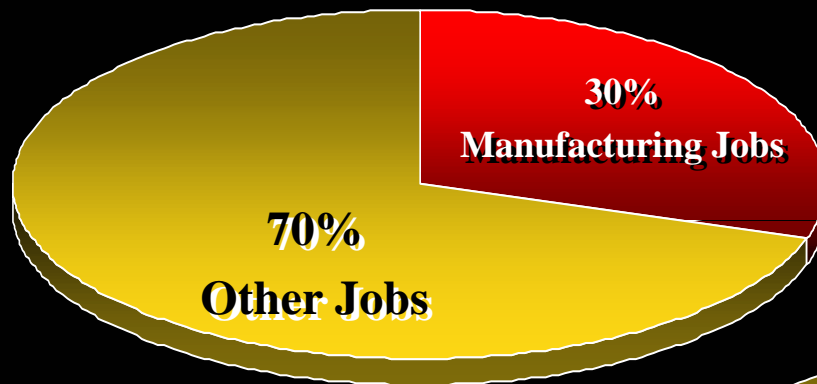
*(2003)*



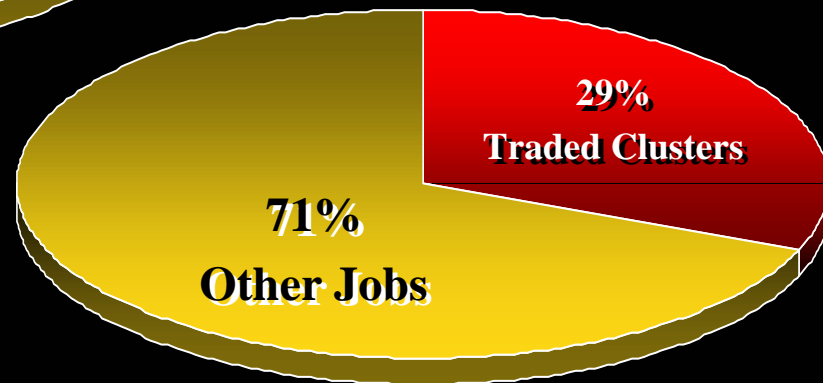
Source: California Employment Development Department



# ***Our Economic Drivers are Changing***



***1957***



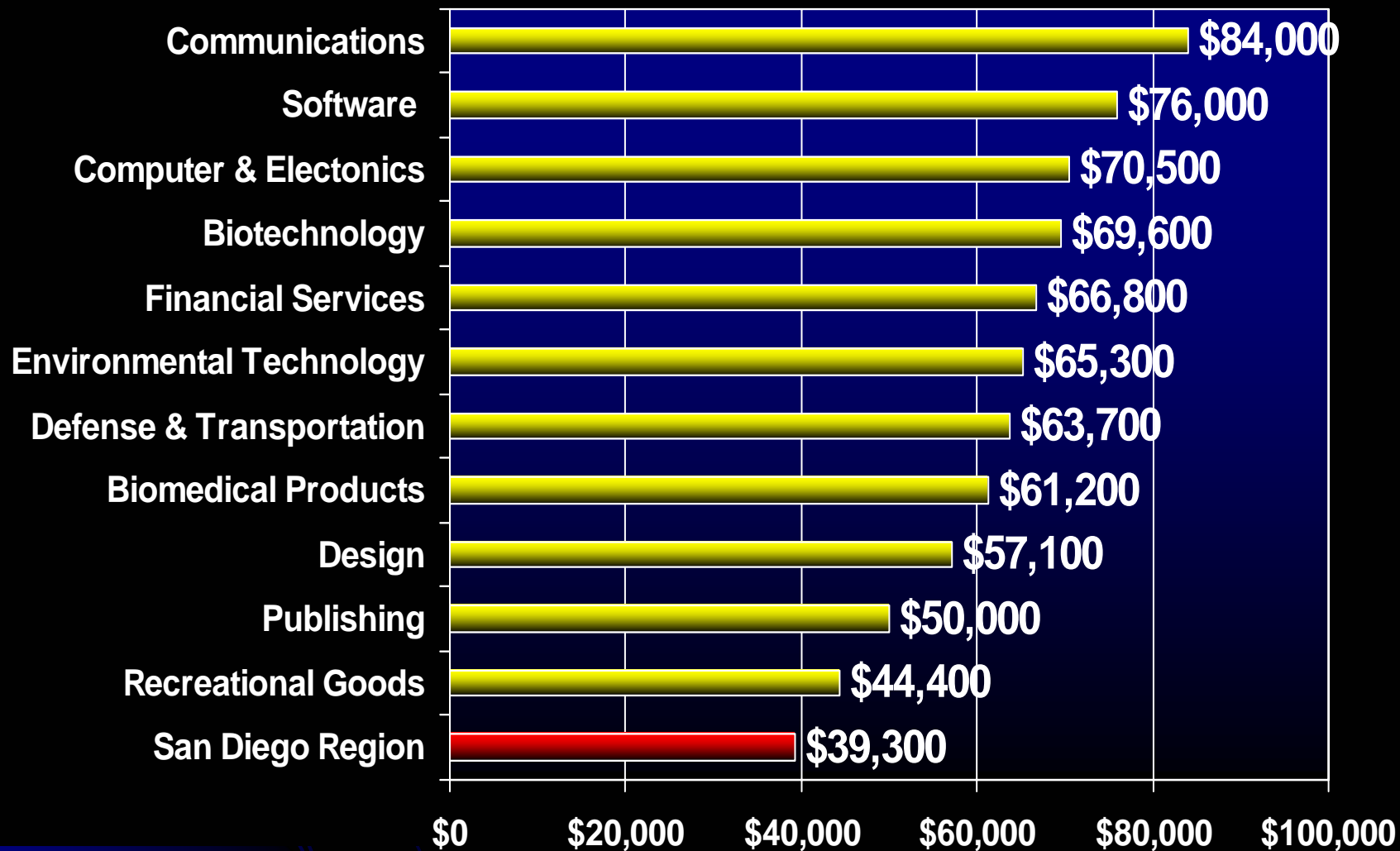
***2004***

# *16 Traded Clusters Drive Our Economy*

- Biomedical Products
- Biotechnology
- Communications
- Computer Electronics
- Defense & Transportation
- Design Services
- Entertainment
- Environmental Technology
- Financial Services
- Fruits & Vegetables
- Horticulture
- Publishing Services
- Recreational Goods
- Software
- Specialty Foods
- Travel and Hospitality

# ***Importance of Selected Traded Clusters***

## ***High Value-Added, High Paying Jobs (2003)***





# *Importance of Selected Traded Clusters*

## *Impact per \$1M Increase in Demand*

	High Value <u>Added Jobs</u>	Low Value <u>Added Jobs</u>	% Difference
Increase	\$1M	\$1M	-
Employment	18	46	156%
Wages per Employee	\$63,700	\$24,200	-62%
Taxes per Employee	\$19,500	\$7,300	-62%

# *Proposed Framework for Solutions*

*Focus on Otay Mesa*



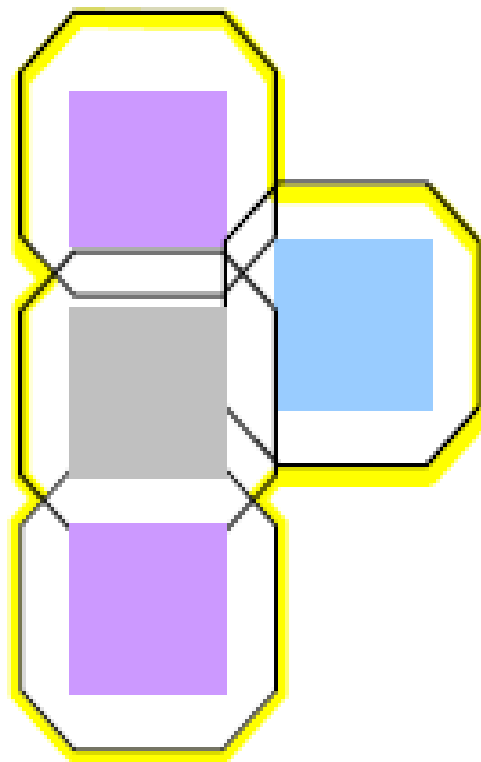
# ***Proposed Framework for Solutions***

## ***(new public policy guidelines)***

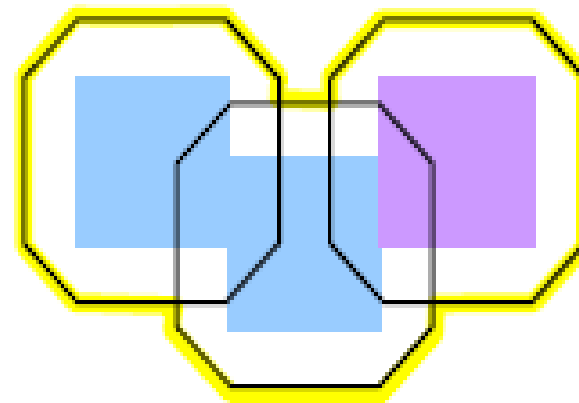
- ***Public policy guidelines to prevent and encourage co-location in appropriate areas***
  - ***Industrial Districts***
  - ***Buffer zones***
- ***Identify prime industrial districts (ID)***
- ***Develop co-location compatibility criteria***
- ***Apply criteria to ID's – compatibility score***
- ***Incorporate guidelines into EP element of GP***

# Illustration of an approach to create Industrial Districts

**ID 1**



**D 2**



Source: SourcePoint, March 2005.

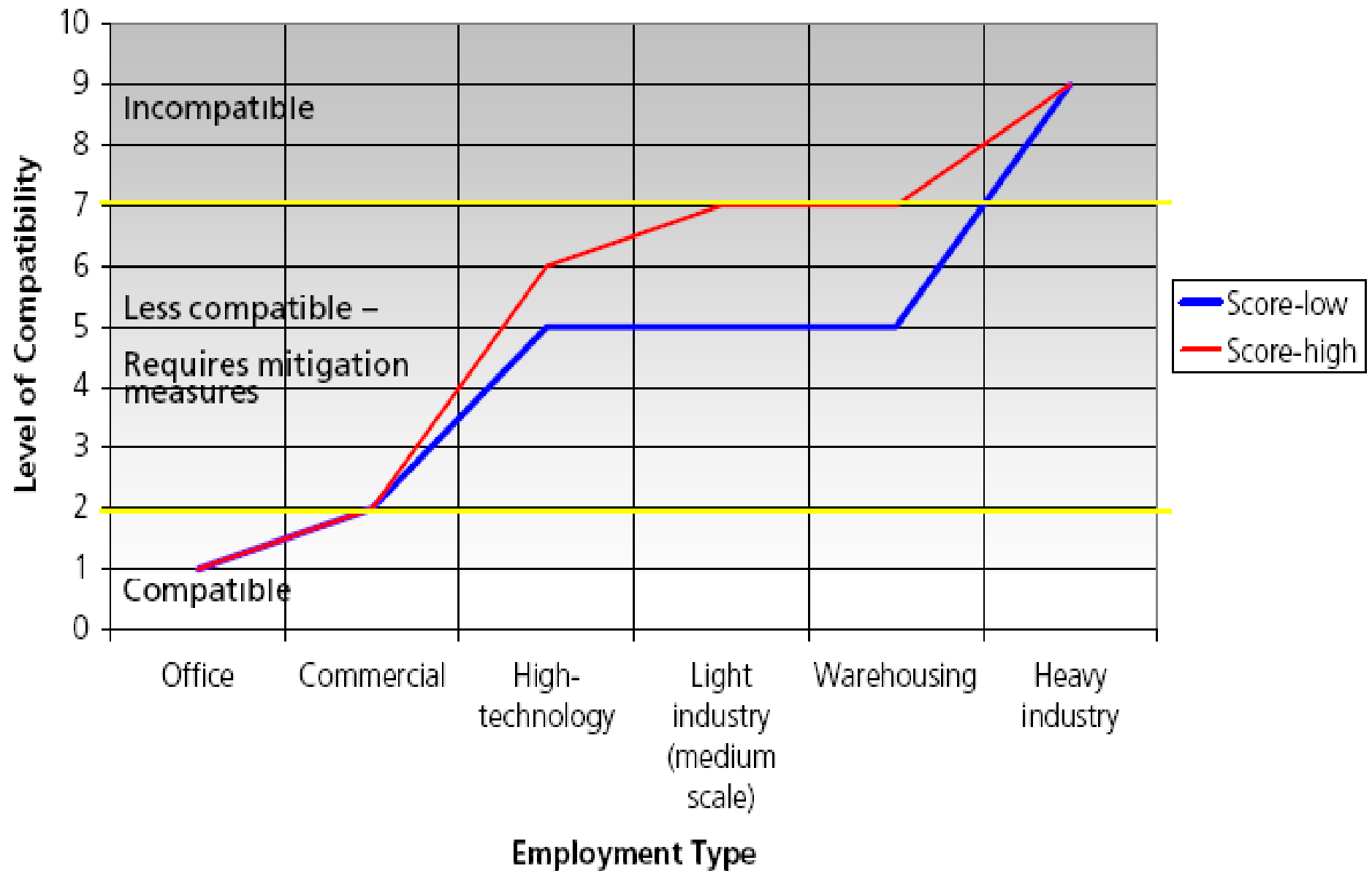
## Illustration of Theoretical Approach for Determining Incompatibilities by Employment Types

<b>Employment Types</b>	<b>Emissions/ Output</b>	<b>Truck Traffic</b>	<b>Hours of operation<sup>1</sup></b>	<b>SCORE</b> (low and high)
<b>Office</b>	No (0)	No (0)	Daytime (1)	1
<b>Commercial</b>	No (0)	No (0)	Daytime (2)	2
<b>High-technology</b>	No (1)	Yes (1-2)	Daytime (3)	5-6
<b>Light industry</b> (medium scale)	Yes (1-2)	Yes (1-2)	All day (3)	5-7
<b>Warehousing</b>	Yes (0-1)	Yes (2-3)	All day (3)	5-7
<b>Heavy industry</b>	Yes (3)	Yes (3)	All day (3)	9

Source: SourcePoint, March 2005.



## Level of Compatibility between Employment Types and Residential Use



# Otay Mesa Community Plannir

2030 Planned Land

- Single Family
- Multiple Family
- Commercial, Office, and Mixer
- Light Industry
- Parks and Open Space
- Transportation, Communicatio
- Education and Institutions
- Commercial Recreation

- Freeway
- 2030 Road Network

Area Scale:  
15 Acres

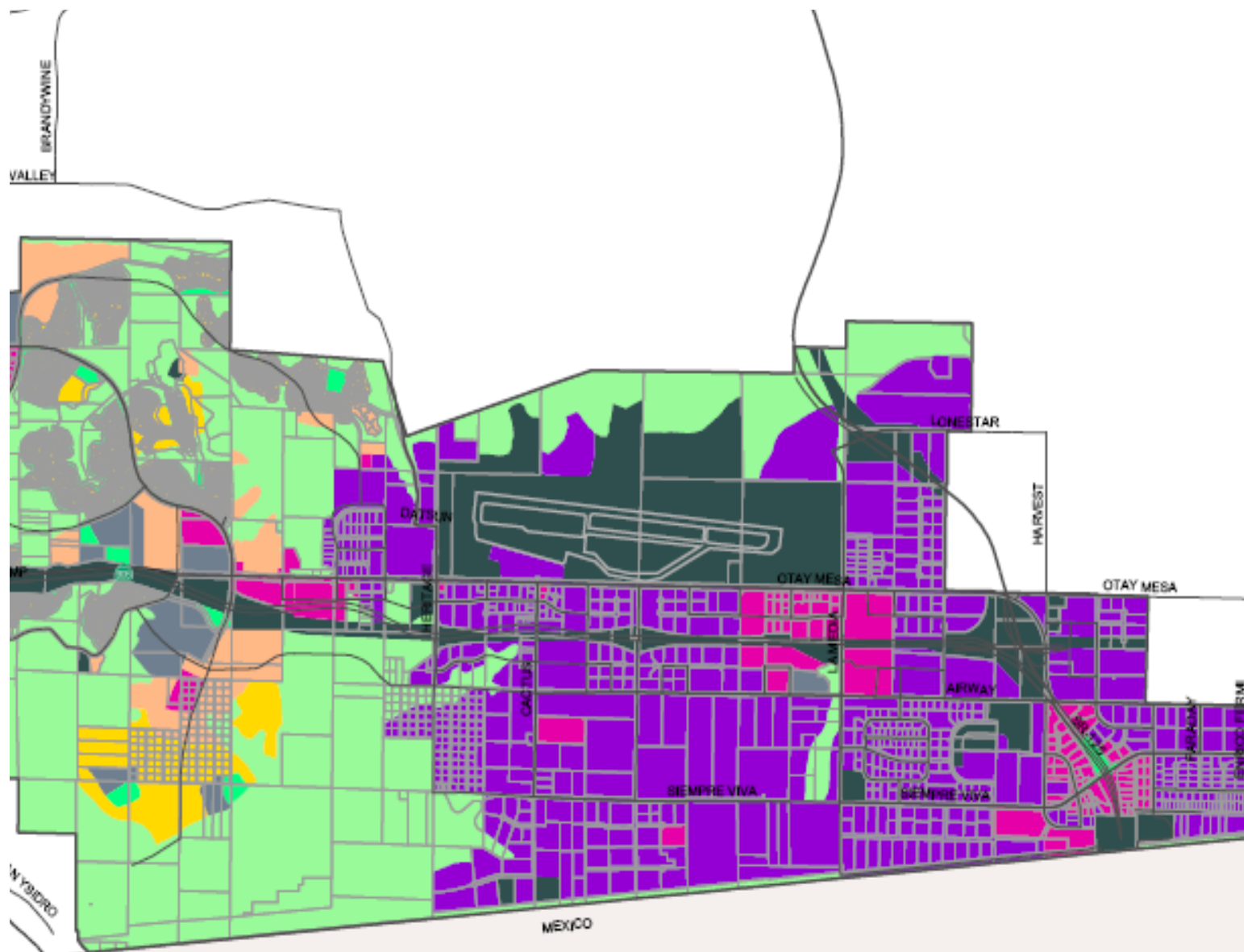
Source: Land use data compiled by SourcePoint with input from the Otay Mesa Chamber of Commerce Technical Committee. Planned Land Use data from SANDAG's regional 2030 forecast.

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Source



# Otay Mesa Community Planner

2004 Existing Land

## 2004 Land Use Categories

- Spaced Rural
- Single Family
- Multiple Family
- Commercial, Office, and Mixed
- Light Industry
- Parks and Open Space
- Intensive Agriculture
- Extensive Agriculture
- Undeveloped
- Transportation, Communication
- Education and Institutions
- Commercial Recreation

## 2004 Existing Land Use Sub-Categories

- Truck Storage (Sub-Category Transportation, Communication)

Area Scale:  
15 Acres

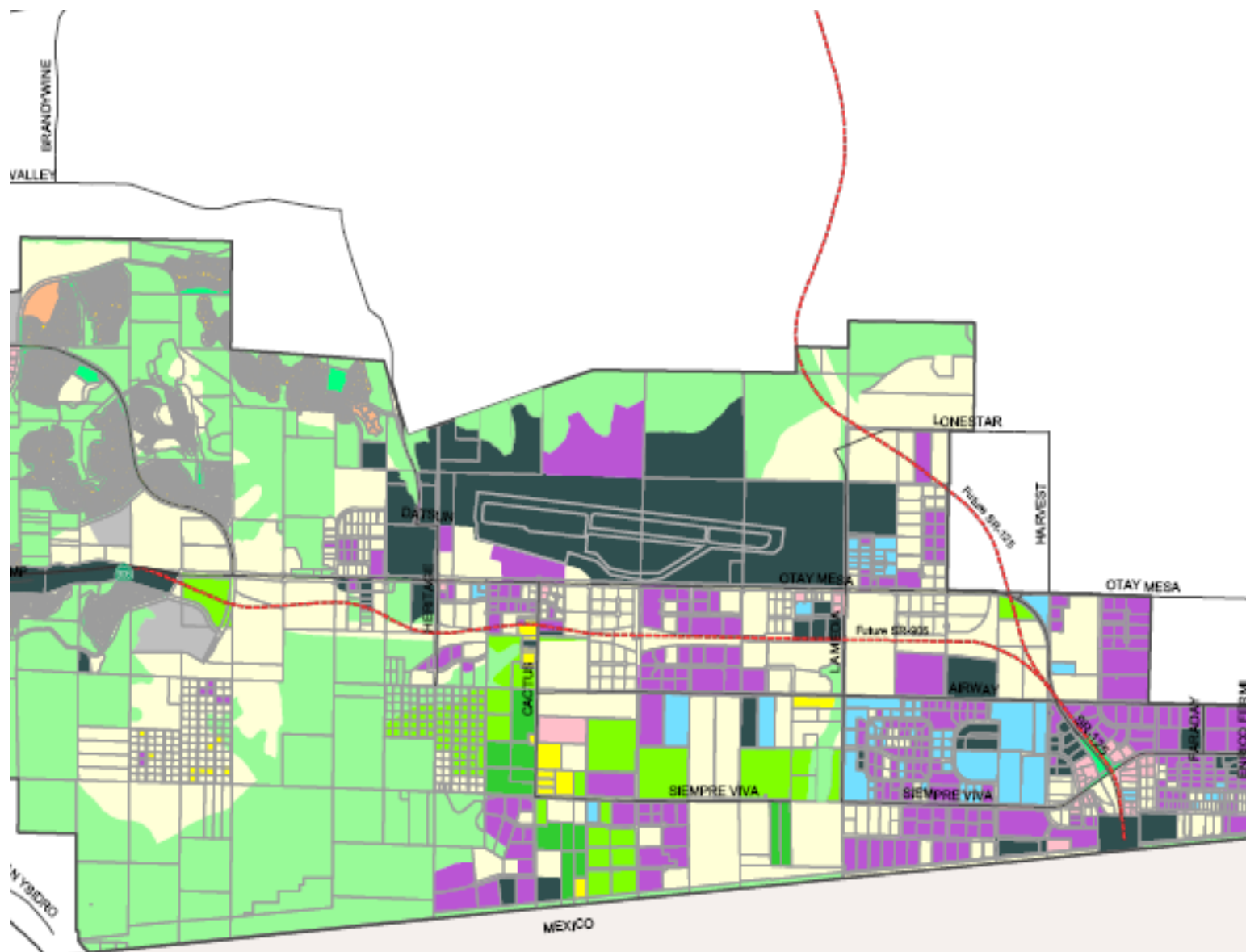
Source: Land use data updated and compiled by SourcePoint with data from the Otay Mesa Chamber of Commerce Technical Committee, Inc.

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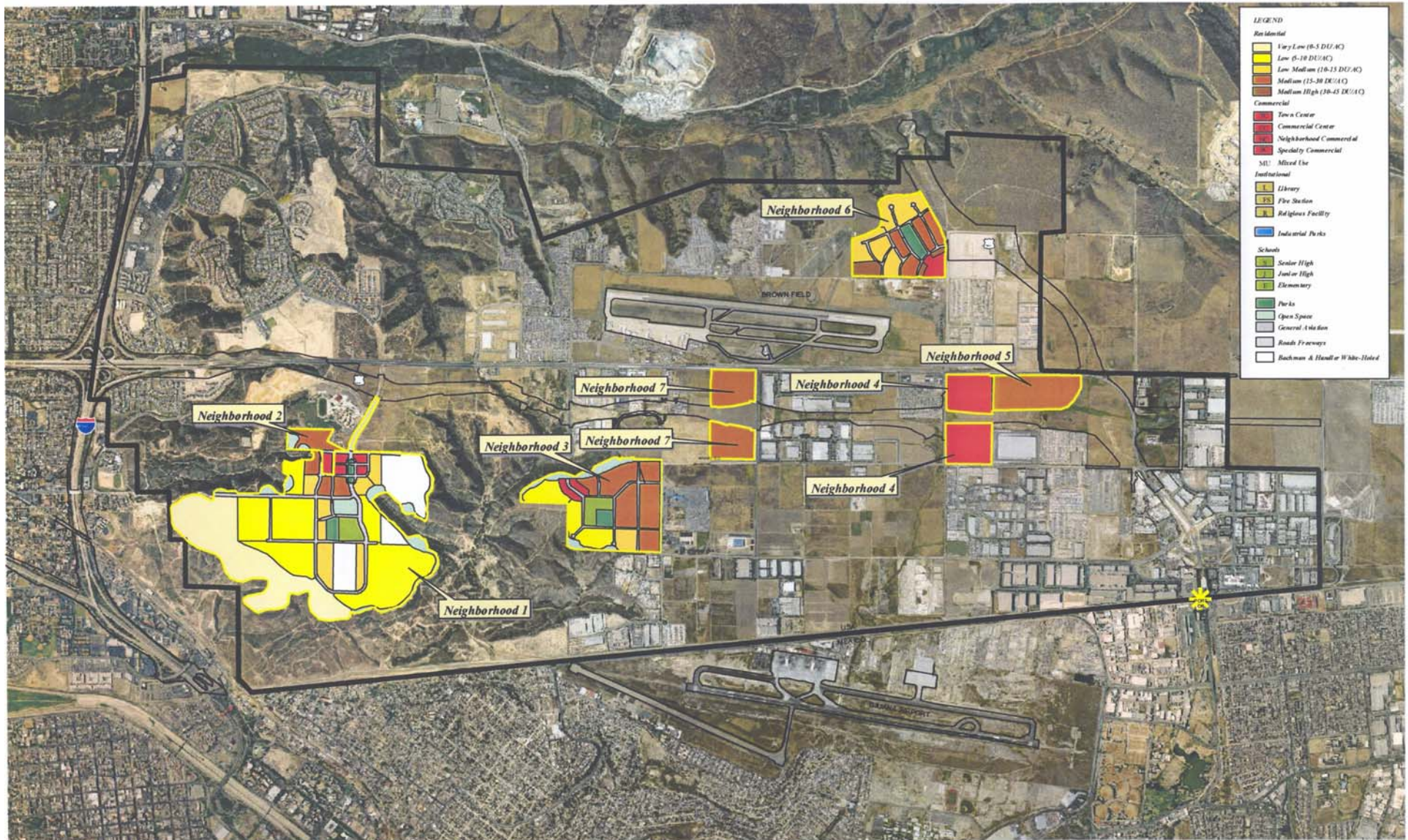


Source





# Proposed Residential Alternatives



Otay Mesa Community Plan Land Use Update

Proposed Neighborhood Land Uses

File Name: c:\2011\11\06\1-01\otay\_mesa\_community\_plan\_land\_use\_update.aprx  
Date: 11/06/11  
Source: Aerial, Aerial, 11/06/11

GIS exhibits may be composed from various sources with different levels of accuracy.  
For details on accuracy of this exhibit please refer to Meta Data provided.





# Otay Mesa Community Plannin

2030 Forecast Truck Network with Unmitigated Impact  
Illustrated with Traffic E

## Commercial Truck Volume (Average Weekday Traffic)

- Less than 1,000\*
- 1,000 to 2,000
- 2,000 to 3,500
- 3,500 to 7,000
- More than 7,000

- Major Roads
- Future Freeways
- Freeway

Proposed Buffer on Forecast Truck Network

\* Includes 500 foot buffer on all roads in commercial truck network. Also includes a 1000 foot buffer forecast to carry more than 20,000 commercial trucks.

\* Red line may represent only one (1) truck.

Source: Data compiled by SourcePoint with input from Otay Mesa Chamber of Commerce Technical Committee. Transportation models incorporate land use change and proposed highways and streets to forecast traffic increases.

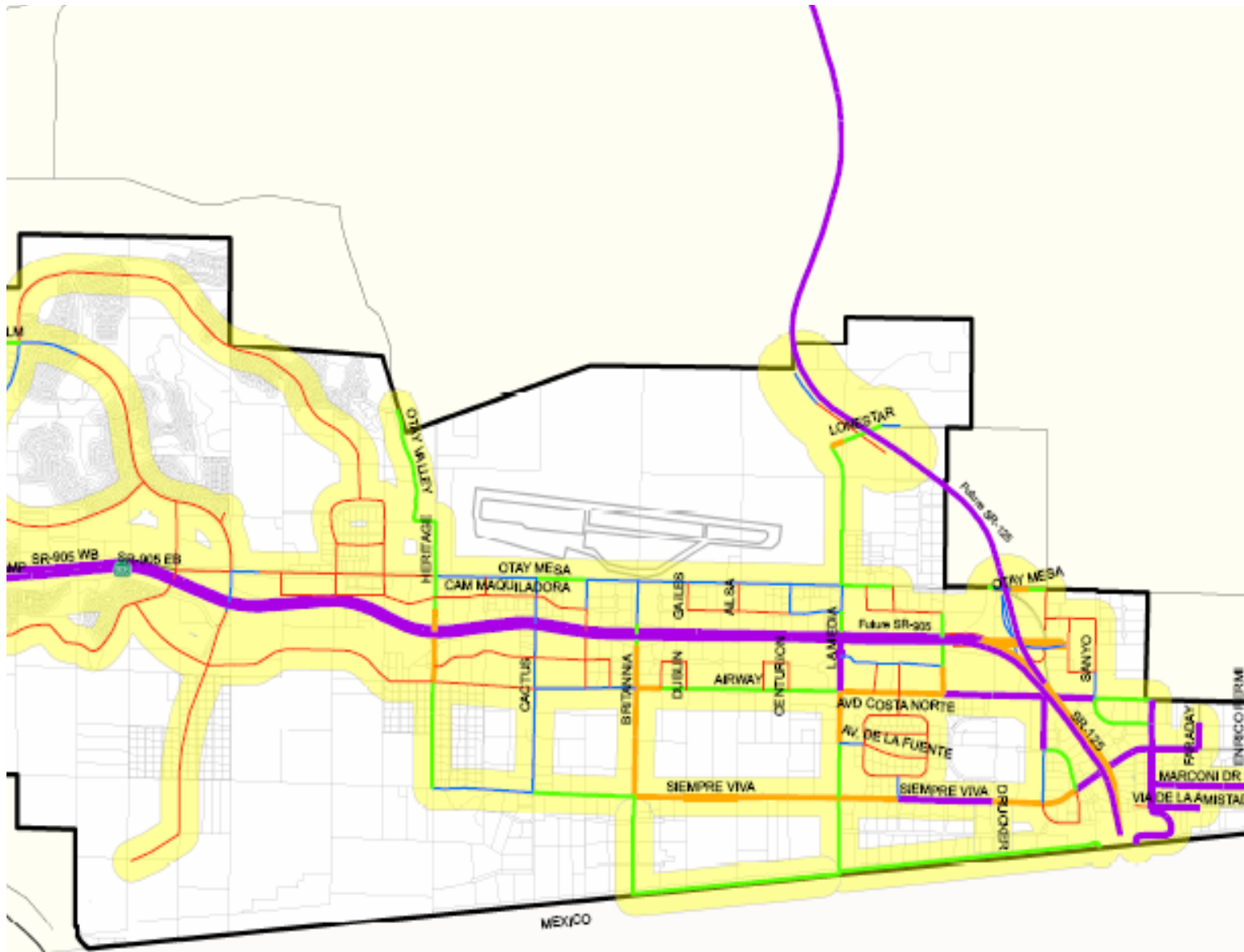
Traffic and truck count data collected and distributed by Caltrans and the City of San Diego.

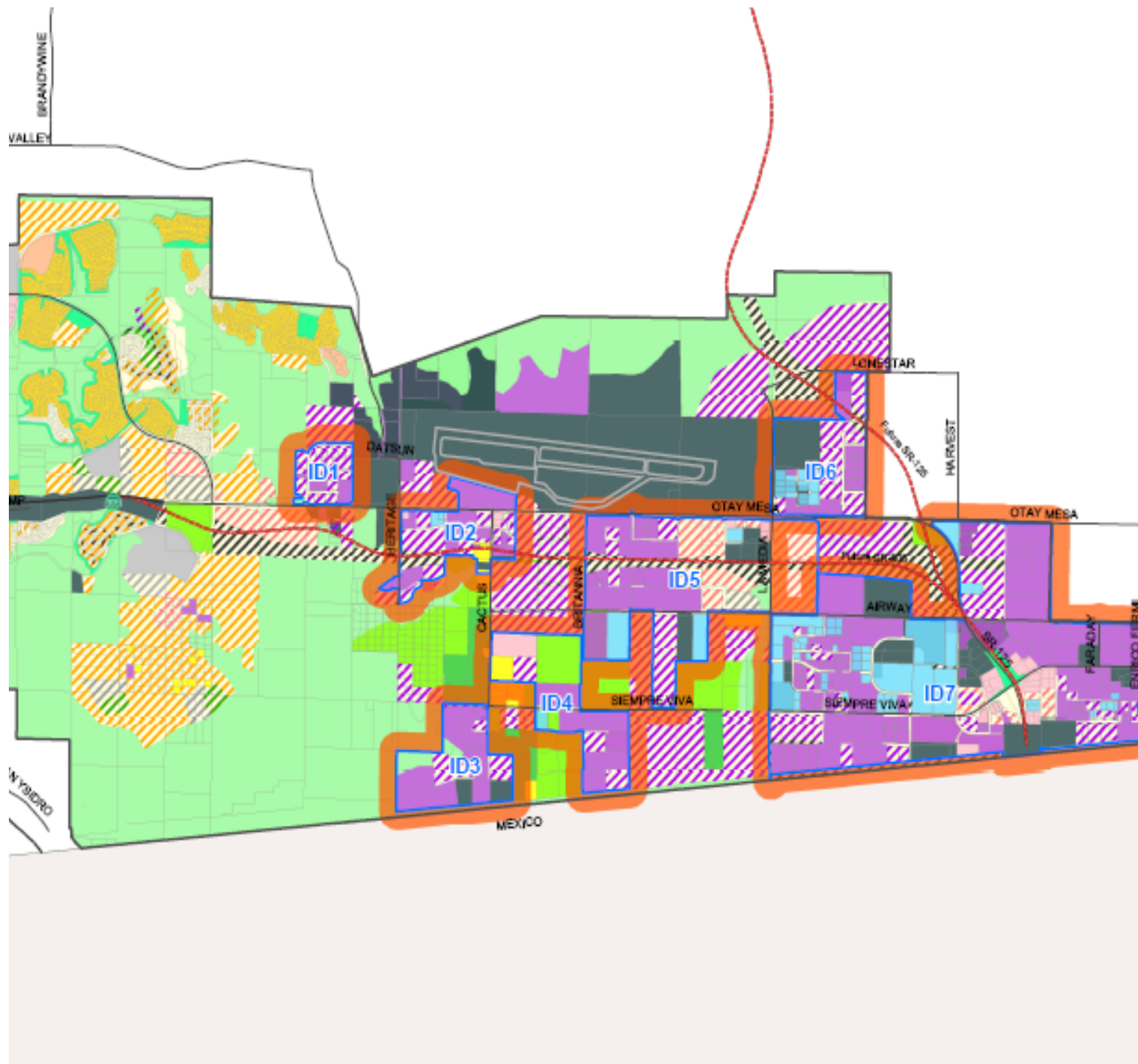
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Source





# 2004 Existing Land Use with Illustration of Potential Industrial Districts Otay Mesa Community Planning

Potential Industrial District Bounds

Proposed Buffer on Potential Industrial Districts

2004 Existing Land Use

- Spaced Rural Residential
- Single Family
- Multiple Family
- Commercial, Office, and Mixed Use
- Light Industry
- Parks
- Intensive Agriculture
- Extensive Agriculture
- Transportation, Communication and
- Education and Institutions
- Commercial Recreation

2004 Existing Land Use Sub-Category

Truck Storage (Sub-Category of Transportation, Communication, and

2030 Planned Land Use for Existing

- Single or Multi-Family Residential
- Light Industry
- Education and Institution
- Commercial, Office, and Mixed Use
- Parks and Open Space
- Roads and Freeways

\* See disclaimer on page (i)

Source: Land use data updated and compiled by SourcePoint with input from the City Area Chapter of Committee Technical Committee, December 2004.

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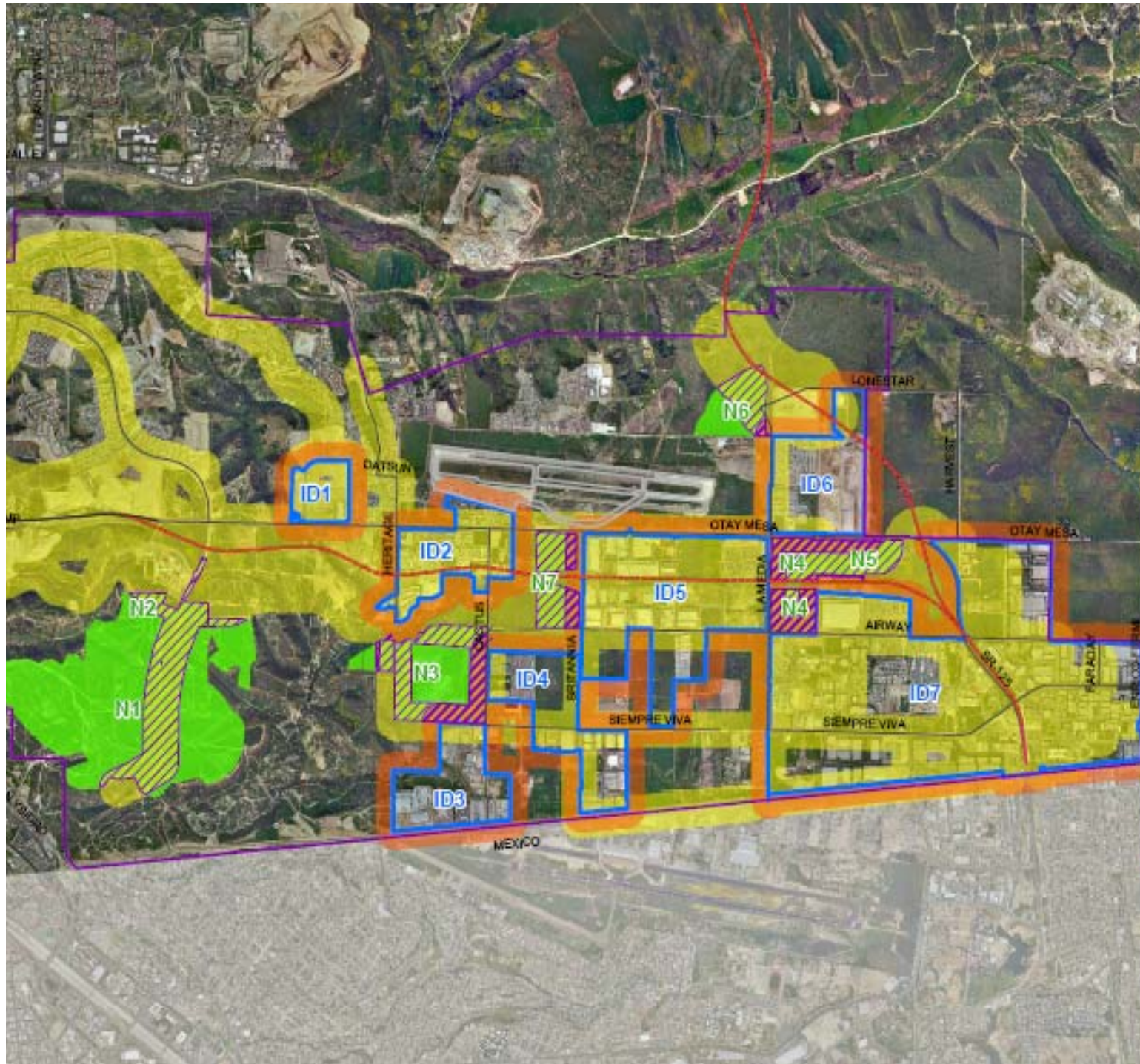




# DRAFT FOR DISCUSSION

## Illustration of Potential Industrial Corridors

### Otay Mesa Community Planning



- Otay Mesa Boundary
- Proposed Industrial Boundaries\*
- Proposed 500 Foot Buffer Potential Industrial Corridors
- Proposed Neighborhoods
- Buffer on Forecast 2030 Truck Network
- Areas of Proposed Future Developments Conflicting with Forecast Truck Network
- Areas of Proposed Future Developments Conflicting with Proposed Industrial Boundaries

\* See disclaimer on page 10

\*\* Includes 500 foot buffer on all roads in commercial truck network. Also includes a 1000 foot buffer on forecast to carry more than 20,000 commercial vehicles.

Source: Data compiled by the City of San Diego with input from the City of San Diego and the County of San Diego. Transportation models incorporate land use changes or proposed highways and streets to forecast traffic volumes.

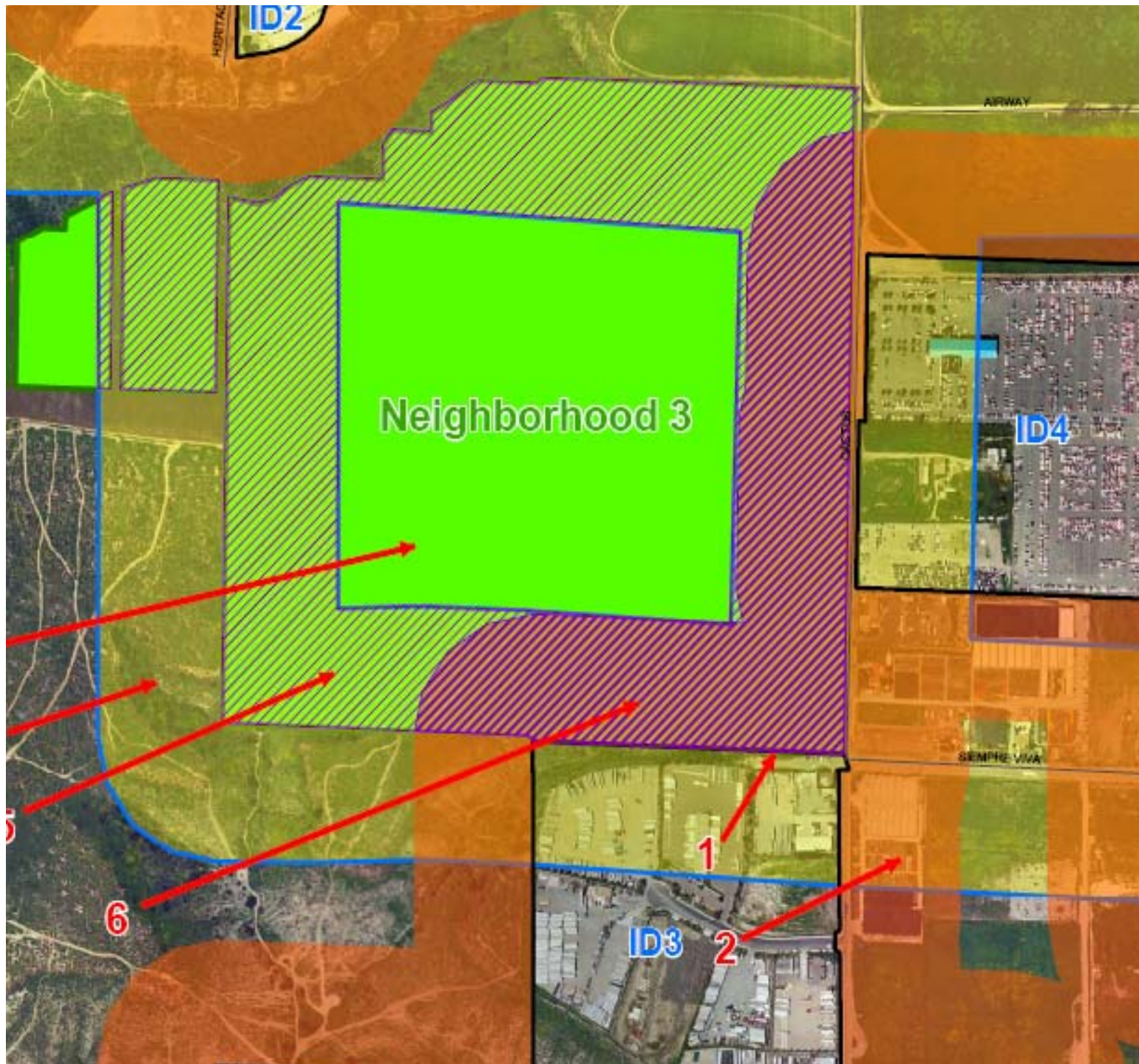
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Image Date: April, 2005.







**DRAFT FOR DISCUSSION**

## Otay Mesa Community Planning

Example: Focus on  
Proposed Neighborhood

- 1 Potential Industrial District Boundaries
- 2 Proposed 500 Foot Buffer
- 3 Proposed Neighborhood
- 4 Buffer on Forecast 2030 Truck Network
- 5 Areas of Proposed Future Developments Conflict with Forecast Truck Network
- 6 Areas of Proposed Future Developments Conflict with Proposed Industrial District

\* See disclaimer on page (i)

\*\* Includes 500 foot buffer on all roads in commercial truck network. Also includes a 1000 foot buffer on forecast to carry more than 20,000 commercial trucks.

Source: Data compiled by SourcePoint with input from Otay Mesa Chamber of Commerce Technical Committee.

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# *Summary Points*

- *Generally, industrial and residential land uses are not compatible and require the most mitigation*
- *90% of jobs are not industrial and require the least mitigation*
- *Select basic jobs located mostly on industrial land are key to rising standard of living*
- *Unchecked-market forces will erode our industrial base*
- *New public policy guidelines are required to address industrial / residential co-location*



# *Co-Location*

*Overview for  
Science & Technology Committee*

*February 7, 2006*